

**WHAT IS CLAIMED IS:**

1. A system for sterilizing a sterilizable object, the system comprising:

5 a container having an interior, said container having a sealable opening through which a sterilizable object may be placed into the interior of said container;

a sterilant generator disposed within the interior of said container;

10 a sterilant activator operative within the interior of said container; and

an indicator adapted to indicate when sterilizing conditions have been achieved within the interior of said container;

15 whereby, when a sterilizable object is placed within the interior of said container, and the opening of the container is sealed, the sterilant generator is activated by the sterilant activator to release an effective amount of sterilant within the interior of the container to sterilize said sterilizable object.

2. The system according to Claim 1 wherein said indicator is adapted to indicate when an effective amount of sterilant has been generated.

3. The system according to Claim 1 wherein said indicator is adapted to indicate when an effective time interval has elapsed.

4. The system according to Claim 1 wherein said indicator indicates when an effective amount of sterilant has been generated and when an effective time interval has elapsed.

25 5. The system according to Claim 1 wherein said sterilant generator generates chlorine dioxide gas when activated.

6. The system according to Claim 1 wherein said sterilant activator comprises moisture.

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7. The system according to Claim 1 wherein said sterilant activator comprises manual manipulation of said sterilant generator.

8. A system for sterilizing a sterilizable object, the system comprising:

5 a container having an interior and a sealable opening through which a sterilizable object may be placed;

a sterilant generator that will produce an effective amount of chlorine dioxide gas, said sterilization generator being disposed within said container;

10 a visual indicator in communication with the interior of the container, said visual indicator being responsive to the presence of the effective amount of chlorine dioxide gas;

a time indicator disposed in communication with the container and adapted to indicate the passage of a predetermined time interval;

15 wherein, when a sterilizable object is placed within the interior of the container and the opening is sealed, the generator releases an effective amount of chlorine dioxide within the container when said generator is activated, while a time indicator is activated to indicate when a sufficient time interval has elapsed.

20 9. The system according to Claim 8, wherein the generator further comprises a carrier having a coating formulated to release an effective amount of chlorine dioxide.

10. The system according to Claim 9 wherein said coating is a film.

25 11. The system according to Claim 9, wherein the coating is formulated to release the effective amount of chlorine dioxide in the presence of high humidity.

12. The packaging system according to Claim 8 wherein the generator further comprises a composition applied to an inner surface  
30 of the container.

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13. The packaging system according to Claim 8 wherein a humidifier is disposed within the interior of the container.

14. The packaging system according to Claim 8 wherein the generator further comprises a chlorine dioxide-releasing composition responsive to an internal package stimulus.

15. The packaging system according to Claim 8 wherein the container is partially formed of a flexible film.

16. The packaging system according to Claim 8 wherein the container is a sterilization pouch having an upper plastic member sealed along its margins to a lower paper member.

17. The packaging system according to Claim 8 wherein the container is a rigid container.

18. The packaging system according to Claim 17 wherein the rigid container is at least partially formed of glass.

19. The packaging system according to Claim 17 wherein the rigid container is at least partially formed of plastic.

20. A process of sterilizing a sterilizable object comprising the steps of:

- supplying a sterilizable object to be sterilized;
- placing the sterilizable object within an interior of a sealable container;
- providing a generator of a sterilant within the enclosure;
- sealing the sterilizable object within said container;
- activating a time indicator disposed on the container;
- activating said generator so as to release a sterilant from the generator, the sterilant reacting with a visible change indicator in communication with the interior of the container and responsive to the presence of an effective amount of the sterilizing gas; and
- maintaining the enclosure in a sealed condition until sterilizing conditions have been achieved.

00552034-061200

21. The process according to Claim 20 wherein the step of releasing a sterilant comprises releasing a gas.

22. The process according to Claim 21 wherein said gas is chlorine dioxide.

5 23. The process according to Claim 20 wherein the step of providing a generator of a sterilant comprises providing a carrier having a coating formulated to release chlorine dioxide gas.

10 24. The process according to Claim 20 wherein the step of providing a generator of a sterilant further comprises supplying a chlorine dioxide-generating composite coating carried by an inner wall of the container.

25. The process according to Claim 20 further comprising the step of providing the time indicator to a location in proximity to the opening of the container.

15 26. The process according to Claim 20 wherein the step of releasing a sterilant further comprises reacting the sterilant with a visible change indicator carried by an outer wall of the container as a portion of the sterilant passes through the outer container wall and in proximity to the visible change indicator.

20 27. The process according to Claim 20 wherein the step of releasing a sterilant further comprises releasing the sterilant in response to an environmental condition within an interior of the enclosure.

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